<u>Amendments to the Specification:</u>

Please add the following new paragraph after paragraph [0021]:

A1

[0021.1] Fig. 1C is another side view of the ablation system in accordance with the present invention.

Please replace paragraph [0043] with the following amended paragraph:

A2

[0043] Now turning also to <u>Figs.</u> [[Fig.]] 1B <u>and 1C</u>, a catheter 100 is shown incorporating a steering system in accordance with the present invention. Catheter 100 incorporates a steering system 102 having a distal attachment point A located proximal to distal portion 124<u>,</u> <u>and a proximal attachment point in a handle portion H, as depicted in Fig. 1C</u>. Therefore, as should be readily apparent from Fig. 1B, as the catheter 100 is deflected from an initial position (shown in dashed line), point A moving in a direction indicated by arrow D, the portion of catheter 100 distally located from point A remains unaffected by the deflection, maintaining its natural, substantially straight, orientation. Such a configuration allows the distal portion 124 of catheter 100 to be placed proximal and substantially parallel to target tissue 10, allowing the emitted energy E to fully, and more effectively, impact upon target tissue 10, ensuring proper lesion formation.

Please replace paragraph [0052] with the following amended paragraph:

A3

[0052] As shown in Fig. 2A, deflectable member 112 of <u>a</u> steering system 102A operably attaches to a distal end of tubular member 110. Deflectable member 112 is springy in nature allowing for the deflection of an intermediate portion 108 of catheter 100, such that, as the pull wire 116 translates in a first direction the steering system 102 deflects a portion of catheter 100 and as wire 116 translates in a second direction, the deflected portion of catheter 100 resumes its undeflected orientation, substantially straight as depicted.

Please replace paragraph [0054] with the following amended paragraph:

A1

[0054] The distal end of member 112 is operably attached to attachment member 114, either to its external surface (as shown) or its internal surface. Attachment member [[Member]] 114 also provides an attachment point A for wire 1 16. As shown with reference also made to Fig. 2B, attachment point A is at a point on attachment member 114 furthest away from deflectable member 112. In this way, a mechanical lever arm of maximum length is defined allowing the steering system 102a to deflect less flexible catheter systems, as further described above.

Please replace paragraph [0055] with the following amended paragraph"

A5

[0055] While the attachment member 114 is shown configured as a thin-walled ring member, constructed from a 1 mm section of 15TW hypotube for example, attachment member 114 can be configured in any suitable geometric shape pertinent to the configuration of the catheter 100 itself. For example, the catheter 100 may be constructed in such a way as to make a ring impractical. Other geometric shapes may, therefore, be utilized having cross-sectional geometries including, but not limited to, transverse rectangular, semi-circular, beam, or any other geometries holding attachment point A a sufficient distance from the distal end of member 112, establishing a mechanical lever arm. Figs. 2C and 2D depict geometric cross-sectional shapes of attachment member 114. Fig. 2C depicts attachment member 114 as a beam member whose height dimension is greater than its width dimension such that the beam member can withstand applied bending forces required during operation of steering system 102. Fig. 2D depicts attachment member 114 as a semicircular member allowing for a nonsymmetrical catheter cross-section.

Please replace paragraph [0056] with the following amended paragraph:

A6

[0056] It should be apparent that attachment member 114 can also take on other geometric cross sectional shapes and stay within the spirit of the invention. Additionally, attachment member 114 may comprise more than one geometric form. For example, attachment member

A6 cont.

114 may be formed from numerous substantially tubular bodies, such that the cross-sectional geometry is honeycomb in nature. In such a system each tubular body may be designed to cooperate with a component of inner structure 104, a separate elongated tubular member having at least one lumen passing therethrough for example, holding each separate elongated member in fixed relationship with the others. The elongated members may be used, for illustration purposes only, for the transport of fluids such as saline, liquid or semi-liquid drugs, ablative energy elements such as cryogenic or chemical material, or components of the ablation device itself, such as one or more optical fibers or one or more cryogenic tubules.

Please replace paragraph [0057] with the following amended paragraph:

A7

[0057] Alternatively, it should be noted that one or more components of steering system 102 may be incorporated into catheter structures 104, 106. Additionally, structures 104, 106 may be constructed from materials which provide the functionality of one or more components of steering system 102, such as the deflectable member 112 or attachment member 114, or both. For example, inner catheter structure 104 may comprise a lumen of which a portion, proximate to the distal opening of tubular member 110, is constructed from suitable materials having resilient properties similar to member 112. In this case, pull wire 116 would exit the distal opening of member 110 at a first angular [[radial about]] position with respect to a longitudinal axis of catheter structure 104 and be fixedly attached a predetermined length from the distal end of member 110 to the structure 104 at a second angular [[radial]] position with respect to the longitudinal axis of catheter structure 104, preferably 180° from the first angular [[radial]] position, through epoxy bonding or the like.

Please replace paragraph [0058] with the following amended paragraph:

A8

[0058] As shown in Figs. 2A and 2B, wire 116 exits a distal opening in tubular member 110 and attaches to attachment member 114 at point A. This attachment may be achieved using any know means compatible with the material composition of wire 116 and attachment member 114, including, but not limited to, epoxy bonding, laser brazing, or the like. Pull wire 116 of steering system 102A may pass in a semi-circular manner about a longitudinal

A8 cont.

length of inner catheter structure 104. (The pull wire 116 is not shown in the sectional views for clarity purposes). It is important to note, however, that the semi-circular path depicted is particular to that particular catheter system and the actual path taken by pull wire 116 for any given catheter system is a function of the inner catheter structure therein. For example, the path of pull wire 116 from the distal opening of tubular member 110 to attachment point A may be generally linear if the inner structure 104 was configured to permit such a path.

Please replace paragraph [0060] with the following amended paragraph:

A9

[0060] As shown in Figs. 3A and 3B, a steering system 102B, as compared to system 102A, further comprises attachment member 114A operably disposed between tubular member 110 and deflectable member 112. In this system, pull wire 116 is held substantially parallel to inner catheter structure 104, minimizing abrasive wear between wire 116 and structure 104 during deflection. In this embodiment, attachment member 114 may float with respect to catheter structure 104 while either attachment member 114A or tubular member 110 remains fixedly attached to inner structure 104, as previously discussed with reference to attachment member 114 and member 110 of steering system 102A above.

Please replace paragraph [0061] with the following amended paragraph:

A10

[0061] As with the embodiment of Fig. 2A, since attachment member 114A is rigidly attached to both, member 110 and member 112, attachment member 114 acts as a lever arm with respect to wire 116 attachment point A and the distal end of member 112. As stated above, it is this mechanical advantage which allows for the deflection of catheter systems which, due to their construction, are less flexible. The ablative energy utilized will dictate the required energy transmission medium as part of catheter system 100 and, therefore, the overall flexibility of the catheter system.

Please replace paragraph [0066] with the following amended paragraph:

A11

[0066] Alternatively, with reference to Fig. 6, a second embodiment of a catheter system 200

A11 Cont.

incorporating a flexible portion 226B is shown. Flexible portion 226B allows for the same functionality as portion 226A, discussed immediately above. More specifically, flexible portion 226B is constructed from any suitable biocompatible material allowing for the desired deflection of distal portion 224 upon contact and application of an external force thereon, as discussed above. Alternatively, flexible portion 226B may be an extension of member 112, as part of steering system 102A, beyond ring attachment member 114. Generally, flexible portion 226B extends from about 0.5 cm. to about 2.0 cm. beyond ring attachment member 114, however this depends directly on the specific configuration of the ablation device utilized.

Please replace paragraph [0067] with the following amended paragraph:

A12

[0067] With reference now to Figs. 7A and 7B, another embodiment of steering system 102 will be discussed. Steering system 102C is similar to steering system 102B, however lacks distal ring attachment member 114 and further includes a distal flexible means 226. The distal end of pull wire 116 is attached at a predetermined attachment point A along the length of member 112. The attachment point A is defined by the ablation system utilized and the desired flexibility required such that the distal portion of the ablation device can engage the specific target tissue of interest during use. For example, for microwave based systems which utilize a linear ablation element and RF based systems which utilize one or more electrodes mounted along the distal length of the ablation device, the attachment point would be more proximally located along member 112 to allow the distal portion of the ablation device to engage the target tissue over substantially its entire length.

Please replace paragraph [0073] with the following amended paragraph:

A13

[0073] Now referring specifically to Fig. 9B, as the distal portion 224 of catheter 200 enters the right atrium 16, the steering system 102 acts to deflect distal portion 224 to direct distal tip 227 [[226]] in a direction generally toward the tricuspid valve 12. As is depicted, and as should be readily understood, once the distal portion 224 is within the right atrium, the catheter 200 is no longer advanced, however, distal portion 224 is continually deflected by

A13 cont.

operation of the controlling means within the handle portion, controlling the deflection of steering system 102, as described in greater detail above. Continued operation of the steering system 102 results in further deflection of distal portion 224, attachment point A moving generally in a direction noted by arrow M1.

Please replace paragraph [0074] with the following amended paragraph:

A14

[0074] As is readily understood with reference made specifically to Figs. 9B and 9C, as the distal tip 227 [[226]] of portion 224 engages target tissue 10, flexible portion 226 deflects allowing the distal portion 224 to be placed substantially proximal and parallel to the surface of target tissue 10. Deflection of portion 224 made possible by flexible portion 226 allows for proper application of ablative energy E to tissue 10 for tissue ablation resulting in the desired lesion formation.

Please replace paragraph [0090] with the following amended paragraph:

A15

[0090] It should be noted that the efficiency of ablation device 230A is directly related to the ability of transmission medium 236 to effectively transmit energy from the energy source to ablation element 232. Therefore, ablation device 230A may further comprise elements which maximize the efficiency of the ablation system. For example, these elements may comprise one or more electrical components which interface to one or more elements of the ablation system, comprising the energy source, transmission medium and ablation device, acting to match the impedance characteristics of, or otherwise tune, the ablation system itself. [[24]]